NOTES ON MUSCOID SYNONYMY.

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Cylindromyia pusilla n. n.

Mr. Curran has kindly called my attention to the fact that my Cylindromyia nigra (Proc. U. S. N. M., 68, art. 23, 1926, 11) was preoccupied by Villeneuve, Annales Soc. Ent. France, 1917 (1918), p. 504. I therefore propose for my species the new name Cylindromyia pusilla.

Scologaster immsii Tothill.

I am also indebted to Mr. Curran for the information that my *Scologaster fuscipennis*, described in Insecutor Ins. Menst., xiv, 1926, 53, from Szechuen Province, China, is the same species which Tothill described as *Gymnochaeta immsii* in Bulletin of Entom. Research, ix, 1918, 47, from Bhowali, Kumaon, India. There is a paratype in the Canadian Collection, from which Mr. Curran sent me some additional items, although there was little doubt of the synonymy from the description. I would retain the genus *Scologaster* on the characters I have already given.

Sarcophaga obtusifrons Thomson.

I described Sarcophaga peltata in 1916 (Sarcophaga and Allies, p. 216) from Porto Rico, and material was later received from Central America. Quite recently I found the same species in abundance in a collection of Samoan Sarcophagas that I was identifying for Professor Buxton, of the London School of Tropical Medicine. This led me to a further investigation of our collection, and I discovered that Coquillett many years ago had identified Sarcophaga obtusifrons Thomson from the Galápagos Islands. This was the original locality, and the identification can hardly be doubted, from the golden pollen of the fourth abdominal segment, etc. On spreading the genitalia of the Galápagos males, they were found to be the same species. My peltata is therefore a synonym of obtusifrons Thomson (Eugenies Resa, 1868, 536), and the species is very widely distributed through the tropics. It is very likely that Sarcophaga taitensis Schiner (Novara, 1868, 314), from Tahiti, is the same, as the fourth segment and genitalia are golden. His male type should be examined to settle the question. It has been usual to give priority to Novara

over Eugenies, but Kahl has shown (Ann. Carnegie Mus., xi, 1917, 392, 393) that there is room for discussion on the point.

Eucelatoria australis Townsend.

Walton, Proc. Ent. Soc. Wash., xvi, 1914, 93, described Compsilura oppugnator, new species, from Porto Rico. In our collection Townsend had placed the type as a synonym of his Eucelatoria australis, described from Perú in Proc. U. S. N. M., vol. 43, 1912, 315. I agree with the synonymy, but there is considerable variation in the discals, ocellars, and bristles of the facial ridges. The females have no ocellars or very small ones; as they are absent in Walton's type this probably accounts for his generic reference, although the species having bare eyes is not a true Compsilura. Our collection includes a series of seven reared from Calpodes ethlius in St. Vincent, West Indies, by F. Watts. The species is barely distinct from Eucelatoria armigera Coquillett.

Sturmia inca Townsend.

In Annals of the Entomological Society of America, vol. 4, 1911, p. 142, Townsend proposed the name *Zygosturmia inca* new genus and species, based on some internal organs of a Peruvian muscoid; he supplied the external characters in Proceedings U. S. National Museum, vol. 43, 1912, p. 323, the types being two females from Sullana, Perú.

The species is common in the Southern States, there being in the National Museum, besides the types, about 300 specimens from Miami, Florida, collected in 1908 by Dr. and Mrs. Townsend; four from Audubon Park, Louisiana, bred from Herse cingulata Fabricius by C. E. Smith; thirty-four from Victoria, Texas, reared by J. D. Mitchell from the same host; fourteen from the same place, reared from Sphinx larvae, perhaps the same host as preceding; six from College Station, Texas, collected by H. J. Reinhard; and there is also one from Oak Grove, Virginia, collected by Townsend.

On comparing it with the European Sturmia vanessae Robineau-Desvoidy (recently made a synonym of bella Meigen), the type species of Sturmia, I think they are congeneric in even a narrow sense. Inca is much allied to distincta Wiedemann, our common sphinx parasite, but is a little smaller, and the fourth abdominal segment is black on about the basal half, the remainder red, but not densely golden pollinose; the palpi are generally black to the extreme tips, while in distincta they are usually reddish at tips. The male genitalia are of the same ordinary structure in

both, and the third abdominal segment has in the males of both a roundish area of matted hair on each side below. Sturmia cubae-cola Jaennicke (sociabilis Greene) is a very closely allied species with abdomen wholly black at tip, and the palpi black only basally. We have six types (of sociabilis) and six other specimens from Porto Rico, and two more from Greenwich Park, British Guiana, reared from sphinx larvae by G. E. Bodkin.

The Genus Epidexia Townsend.

In the Journal of the New York Entomological Society, xx, 1912, 112, Townsend established the genus *Epidexia*, mostly on internal and egg characters; he gave additional external characters in Insecutor Ins. Menst., iv, 1916, 54. The type and sole original species was *filamentosa*, new; but in 1916 the author noted that Coquillett's *Masicera pulverea* "practically belongs to this genus," and noted some points of resemblance and difference.

Coquillett's types are both males, one from Florida and the other from Tifton, Georgia. Townsend did not describe the male of filamentosa, although at present there are seven males in the collection, all taken at Miami, Florida, in November, 1908, by himself and wife, several on the same day as the females which he described. If he had had these before him when he wrote the notes just mentioned, he would have seen that the Tifton, Georgia, type of Coquillett's pulverea is identical. It is a larger and more robust specimen, and has three sternopleurals. The other Coquillett type, which now bears the holotype label, differs from the Tifton one only in having the first posterior cell closed in the border instead of very short petiolate. It is apparently a little more robust in form, but the thorax has been somewhat flattened in pinning, the dorsum having several evident dents. One of the two type specimens of filamentosa now in the collection, the paratype, has three sternopleurals on one side, although all the other Miami specimens of both sexes have only two on each side. The absence of petiole in one specimen is only what would be expected in an occasional case where the petiole is normally very short. Although the matter is not entirely free from doubt, I consider filamentosa a synonym of pulverea.

There are three specimens as large as the Tifton one which have black legs; one of these is a female from Opelousas, Louisiana, the others are males from Falls Church, Virginia (Knab), and Beltsville, Maryland (Walton). These three all have two

sternopleurals and the usual short petiole, and I do not believe they represent a distinct species, although in all the others the coxae, femora and tibiae are reddish-yellow. The Beltsville specimen has no ocellars, although all the others have a small pair.

The Genus Allophorocera Hendel.

In Psyche, vol. xiv, 1917, 141, H. E. Smith described Allophorocera montana, the first and so far the only American species to be assigned to this genus. The type male, from Powderville, Montana, was deposited in the collection of the Montana State College. One female marked type, but evidently allotype or paratype, is in the National Museum, to which have been added a female from Fairview, British Columbia (Buckell), a male from Cranbrook, B. C. (Garrett), and a female from Mount Lowe, California (Aldrich). Three other females in the type lot were perhaps retained in Mr. Smith's collection. Before I had discovered that our male specimen belonged to Smith's species I had placed it in Tachinomyia, as it agrees well with that genus, and has the same characteristic genitalia, the inner forceps united into a slender hook, and the outer forming flat, adherent plates with a fingerlike process. It separates from all other known members of Tachinomyia by having discal macrochaetae on the third segment, and sometimes on the second. On reviewing the matter, I am convinced that it belongs to this genus.

Allophorocera was proposed by Hendel, in Verhandlungen K. K. Gesellschaft Wien, vol. li, 1901, 203. It had only one species, Dexodes auripilus Brauer and Bergenstamm. The characters given as diagnostic are rather minute ones, and are not definitely compared with those of the genotype of Dexodes (spectabilis Heigen of Brauer and Bergenstamm, equals albisquama Zetterstedt, according to Bezzi in Pal. Kat.). We have both type species in the National Museum, and I should consider them congeneric. The male genitalia in both are of the more usual type, the inner forceps divided, and the outer well developed. In both auripila and albisquama the distance of the tip of the fourth vein from the extreme apex of the wing is about one-half that which separates the tips of the second and third veins; while in the American montana here transferred to Tachinomyia, the former distance is just about equal to the latter. In other words, the apical cell ends much farther before the tip of the wing in montana than in the type species of Dexodes and Allophorocera.

"New Holarctic Muscoidea."

In a recent paper, with the above title (Insecutor Ins. Menstruus, xiv, 1926, 24-41), Dr. C. H. T. Townsend has proposed twenty new genera, each with a single species. Fourteen of these are based on new North American species, two on previously described North American species, and the remaining four on European described species. I have diligently studied the full descriptions of the first mentioned fourteen, endeavoring to find the genotype species in the National Museum collection, with considerable success and quite surprising results. As it is necessary to have a large collection for reference in elucidating these, and other workers would be under some disadvantage in this regard, it seems obligatory for me to publish my conclusions. I have added notes on the two genera based on described North American species, and have listed for completeness the new European genera at the end. All of the new species were collected by Townsend when he was in the employ of the U. S. Bureau of Entomology some years ago.

I. (Page 25). Mallochomyia johanseni, new genus and species, for *Phormia caerulea* Malloch, the species being preoccupied. The name Boreëllus aristatus Aldrich and Shannon was proposed in 1923 for the same species (Ins. Ins. Menst., XI, 107); and more recently Shannon, while retaining the genus Boreëllus, has made the species a synonym of Sarcophaga atriceps Zetterstedt, a European species placed in Onesia in the Palaearctic Catalogue (Shannon, Proc. Ent. Soc. Wash., 28, 1926,

128).

- 2. (Page 25). Gymnogaster, new genus, for Gymnophania montana Coquillett. Said to differ from Gymnophania by "cubitus being reduced to a faint even curve." Brauer and Bergenstamm, however, define Gymnophania as having "cubitus rotundatus, fere nullus"; they identified one of our specimens as "Gymnophania sp." Their figure of the head of the European type species seems identical with ours, but there is no figure of the wing known to me. As the European species is not in our collection and there is no evidence that it has been seen by Townsend. I think it much more likely that montana is identical with the European species than that they belong to different genera.
- 3. (Page 26). Pseudoeribea paradexoides new genus and species. Described from a female, Mount Holyoke Gap, Mass. I have not been able to identify this in our collection.

- 4. (Page 27). Apacheprospherysa orbitalis new genus and species. Described from two males taken by Townsend on the South Fork of Eagle Creek, Sierra Blanca, N. M., at 8,000 feet. I have not been able to find this in the collection.
- 5. (Page 28). Palpexorista phoroceroides new genus and species. Described from one female, Mount Holyoke Gap, Mass. This is the female of Phorocera imitator Aldrich and Webber (Proc. U. S. N. M., 63, 1924, 63), described from Lyme, Conn.; we now have a female from New Haven, Conn., exactly matching Townsend's description. I still think that the species goes properly in Phorocera, but we indicated the subgenus Parasetigena as a narrower group, and Townsend himself proposed Neophorocera type edwardsii Will. (claripennis Mcq. of Aldrich and Webber) in Proc. Ent. Soc. Wash., 14, 1912, 162, which would include phoroceroides in the most restricted sense. Hence there can be no use for Palpexorista, any more than for the new specific name.
- 6. (Page 29). Catagoniopsis infernalis new genus and species. Described from one female, Hell Canyon, Manzano National Forest, New Mexico. This is Phorocera meracanthae Greene, Proc. Ent. Soc. Wash., 23, 1921, 126; two of Greene's paratypes were collected by Townsend on the same day as his own type, and the data were published in full by Greene. In the arrangement proposed by Aldrich and Webber, meracanthae was placed in the subgenus Patelloa; I would consider further generic division superfluous.
- 7. (Page 31). Schizactia new genus, for Schizotachina vitinervis Walton. Four nominal characters are given, but they readily reduce to two—the fourth vein is obsolete from the bend, and the hind crossvein is retracted. As to the latter character, I have noted that it has slight taxonomic value in those Tachinids in which the first posterior cell ends in the tip of the wing (Trans. Amer. Ent. Soc., LII, 1926, 7). In the genotype of Schizotachina, convecta Walker, there is a marked variation in the position of the hind crossvein, and it is sometimes almost as much retracted as in vitinervis; while in almost every specimen the fourth vein is markedly thinner beyond the bend. These characters do not seem to me to be generic.
- 8. (Page 31). Visayalydina sierricola new genus and species. Described from one female, Las Visayas, Sierra Madre, Chihuahua, Mexico. I have not been able to find this species in the collection.

9. (Page 32). Plagiophryxe pecosensis new genus and species. Described from several females, Harvey's Ranch, Pecos National Forest, New Mexico, at 10,000 feet. The full description shows conclusively that this is Zenillia (Phryxe) vulgaris Fallén, a common fly in the Canadian Zone of North America and also in Northern Europe. It is the genotype of Phryxe.

10. (Page 34). Nemosturmia pilosa new genus and species. Described from one female, Franconia, N. H. This is Winthemia fumiferanae Tothill (Canad. Ent., XLIV, 1912, 2). I consider it a true Winthemia and no one has suggested a different disposition

of it until now.

II. (Page 35). Sisyrosturmia chaetosa new genus and species. Described from one female, Base of Mt. Washington, N. H. I

have not been able to identify it in our material.

- 12. (Page 36). Eophrissopolia acroglossoides new genus and species. Described from two females, Grove Hill, Md., taken by Townsend on October 31 and November 2, on Aster flowers. The Museum has four additional females taken by Townsend on same flowers and same place and date; also several of both sexes from this region and a long series from Arizona, New Mexico, California and Colorado, largely collected by Townsend. The species was identified as Chaetogaedia crebra Van der Wulp by Coquillett in his Revision (1897, p. 137); and I believe this was correct. We now have three cotypes of *crebra*, received from the British Museum, which differ only in having the pollen of the head more yellowish. A male from Beltsville, Md., however, has precisely the same head color as the Mexican cotypes. The genitalia in the Arizona and Maryland specimens are the same as in the cotype. Prospherysa vilis Van der Wulp, the genotype of Chaetogaedia, is also represented by cotypes in our collection; it has the parafacial row of bristles more hairlike but evidently homologous. Even if the stouter row in crebra were of generic value, Townsend has already proposed to make this species the type of his genus Phrissopolia, so the new Eophrissopolia is superfluous. I think Chaetogaedia properly includes crebra, of which acroglossoides is a synonym.
- 13. (Page 37). Frontinogaedia new genus for Baumhaueria analis Van der Wulp. This species was placed in Chaetogaedia by Coquillett (Revision, 1897, 137). The characters given by Townsend seem to be purely specific—one of them, the elongation of the second aristal joint, is the same in the genotype of Chaetogaedia.

14. (Page 37). Catalinovoria cauta new genus and species. Described from one male, Sabino Basin, Santa Catalina Mts., Arizona. This is without doubt the species which Coquillett identified as Siphoplagia rigidirostris Van der Wulp (Revision, 1897, p. 78), and which I described as Sthenopleura latifrons in Trans. Amer. Ent. Soc., LII, 1926, 18. The date of my publication is April 14, while that of Townsend is March 11, giving him an ample margin of priority. The Museum has a long series (my types). Townsend's expression, "5R closed far before tip," means that the first posterior cell is closed in the margin far before tip, not that it is long-petiolate. He does not mention the pteropleural bristle, which I take to be the main generic character.

15. (Page 39). Xanthoernestia antennalis new genus and species. Described from one female, Base of Mt. Washington, N. H.

I am unable to find this in the collection.

16. (Page 40). Oxydosphyria infernalis new genus and species. Described from two females, Hell Canyon, Manzano Mts., New Mexico. This is Peleteria iterans Walker var. flaviventris Van der Wulp, of Curran's revision of Peleteria (Trans. Roy. Soc. Canada, Sec. 5, 1925, 238, f. 11). The Museum has six specimens, of both sexes, from Las Vegas Hot Springs, N. M. (Barber); Koehler, N. M. (Walton); Las Cruces, N. M. (Grabham); Custer, S. D. (Aldrich); and Mound Valley, Chihuahua, Mexico (Townsend). The species is not separable from Peleteria, in my opinion.

The European new genera are as follows:

(Page 30.) Erynniopsis rondanii new genus and new specific name for Erynnia nitida Rondani, preoccupied.

(Page 31.) Strobliomyia new genus, for Thryptocera fissicornis Strobl.

(Page 32.) *Prooppia* new genus, for *Carcelia fuscipennis* Robineau-Desvoidy.

(Page 38.) *Echinosomopsis* new genus, for *Echinosoma* Girschner, preoccupied.

The genotypes of these European genera are not in the National Museum, and Townsend does not claim to have seen them.